AMENDMENTS TO THE CLAIMS

Claims 1-31 (canceled)

32. (New) A display characteristics calibration method for calibrating display characteristics of a color display unit provided with a conversion section having a conversion table for converting a display input gradation into a display output gradation for a plurality of colors and with a color display section for performing display in accordance with the display output gradation outputted from said conversion section, comprising the steps of:

calibrating said conversion section such that said color display section should show predetermined brightness and predetermined white chromaticity at a predetermined gradation of display input gradation;

displaying a white screen in correspondence to the display input gradation;

acquiring single color brightness of the plurality of colors from the displayed white screen, then applying a display output gradation corresponding to the display input gradation, and thereby acquiring correlation of display output gradation versus single color brightness;

calculating target white brightness for a plurality of gradations of display input gradation by using predetermined display characteristics and white brightness at the predetermined gradation;

distributing the target white brightness at a single color brightness ratio of the predetermined gradation and thereby acquiring target single color brightness for a plurality of gradations of display input gradation;

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acquiring a display output gradation that indicates brightness corresponding to the target

single color brightness for a plurality of gradations of display input gradation, from the

correlation of display output gradation versus single color brightness; and

establishing correspondence between the acquired display output gradation and the

display input gradation and thereby calibrating said conversion table.

33. (New) The display characteristics calibration method according to claim 32, wherein

the plurality of colors are red, green, and blue.

34. (New) The display characteristics calibration method according to claim 32, wherein

the initial-calibration use display output gradation is adjusted such that the initial-

calibration use display output gradation of any one of the plurality of colors should become the

maximum gradation of output gradation.

35. (New) The display characteristics calibration method according to claim 32, wherein

the plurality of gradations of display input gradation are all gradations of display input

gradation.

36. (New) The display characteristics calibration method according to claim 32, wherein

said color display unit is a color liquid crystal display unit.

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37. (New) A display characteristics calibration method for calibrating display characteristics of a color display unit provided with a conversion section having a conversion table for converting a display input gradation into a display output gradation for a plurality of colors and with a color display section for performing display in accordance with the display output gradation outputted from said conversion section, comprising:

a first step of setting into the maximum gradation the display input gradation of the conversion table for a plurality of colors, then adjusting the display output gradation of the conversion table for a plurality of colors, and thereby acquiring an initial-calibration use display output gradation that causes brightness and white chromaticity of the color display section to become tentative target brightness and target white chromaticity;

a second step of establishing correspondence between the maximum gradation of the display input gradation and the initial-calibration use display output gradation, and thereby performing initial calibration of the conversion table for a plurality of colors such that the correlation between the display input gradation and the display output gradation should become a predetermined function;

a third step of displaying a white screen at a plurality of gradations of display input gradation by using the conversion table for a plurality of colors having undergone the initial calibration;

a fourth step of acquiring single color brightness of a plurality of colors for a plurality of gradations of display input gradation from the white screen,, then applying a display output gradation corresponding to the display input gradation, and thereby acquiring primary display output gradation versus single color brightness correlation characteristics of a plurality of colors;

a fifth step of calculating primary target white brightness for a plurality of gradations of display input gradation by using target display characteristics having been set up in advance as well as white brightness of the case that the display input gradation is at the maximum gradation and white brightness of the case that the display input gradation is at the minimum gradation which have been acquired from the white screen, and thereby acquiring primary display input gradation versus target white brightness correlation characteristics;

a sixth step of proportionally distributing the primary target white brightness for a plurality of gradations of display input gradation by using the ratio of the single color brightness of a plurality of colors of the case that the display input gradation is at the maximum gradation, thereby calculating target single color brightness for a plurality of gradations of display input gradation, and thereby acquiring primary display input gradation versus target single color brightness correlation characteristics of a plurality of colors; and

a seventh step of acquiring a display output gradation that indicates brightness corresponding to the target single color brightness in the primary display input gradation versus target single color brightness correlation characteristics of a plurality of colors for a plurality of gradations of display input gradation, as a calibration-use display output gradation on the basis of the primary display output gradation versus single color brightness correlation characteristics, then establishing correspondence between the calibration-use display output gradation and the display input gradation, and thereby calibrating the conversion table for a plurality of colors.

38. (New) The display characteristics calibration method according to claim 37, further comprising after said seventh step:

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an eighth step of displaying a calibration white screen at a plurality of gradations of display input gradation by using the calibrated conversion table for a plurality of colors;

a ninth step of acquiring single color brightness of a plurality of colors for a plurality of gradations of display input gradation from the calibration white screen, then applying a display output gradation corresponding to the display input gradation, and thereby acquiring secondary display output gradation versus single color brightness correlation characteristics of a plurality of colors; and

a tenth step of acquiring a display output gradation that indicates brightness corresponding to the target single color brightness in the primary display input gradation versus target single color brightness correlation characteristics of a plurality of colors for a plurality of gradations of display input gradation, as a calibration-use display output gradation on the basis of the secondary display output gradation versus single color brightness correlation characteristics, then establishing correspondence between the calibration-use display output gradation and the display input gradation, and thereby calibrating the conversion table for a plurality of colors.

39. (New) The display characteristics calibration method according to claim 38, wherein said eighth step through said tenth step are repeated so that the secondary display output gradation versus single color brightness correlation characteristics should converge.

40. (New) A display characteristics calibration method according to claim 39, further comprising:

an eleventh step of calculating secondary target white brightness for a plurality of

gradations of display input gradation by using the target display characteristics as well as target

brightness at the maximum gradation of the display input gradation and target brightness at the

minimum gradation which have been set up in advance, and thereby acquiring secondary display

input gradation versus target white brightness correlation characteristics;

a twelfth step of proportionally distributing the secondary target white brightness for a

plurality of gradations of display input gradation by using the ratio of the single color brightness,

thereby calculating target single color brightness of a plurality of colors for a plurality of

gradations of display input gradation, and thereby acquiring secondary display input gradation

versus target single color brightness correlation characteristics of a plurality of colors; and

a thirteenth step of acquiring a display output gradation that indicates brightness

corresponding to the target single color brightness in the secondary display input gradation

versus target single color brightness correlation characteristics of a plurality of colors for a

plurality of gradations of display input gradation, as a calibration-use display output gradation on

the basis of the converged secondary display output gradation versus single color brightness

correlation characteristics, then establishing correspondence between the calibration-use display

output gradation and the display input gradation, and thereby calibrating the conversion table for

a plurality of colors.

41. (New) The display characteristics calibration method according to claim 40, wherein

the tentative target brightness is set greater than the target brightness at the maximum

gradation.

42. (New) The display characteristics calibration method according to claim 37, wherein the plurality of colors are red, green, and blue.

43. (New) The display characteristics calibration method according to claim 37, wherein the initial-calibration use display output gradation is adjusted such that the initial-calibration use display output gradation of any one of the plurality of colors should become the maximum gradation of output gradation.

44. (New) The display characteristics calibration method according to claim 37, wherein the plurality of gradations of display input gradation are all gradations of display input gradation.

45. (New) The display characteristics calibration method according to claim 37, wherein said color display unit is a color liquid crystal display unit.

46. (New) A display characteristics calibration apparatus for calibrating display characteristics of a color display unit provided with a conversion section having a conversion table for converting a display input gradation into a display output gradation for a plurality of colors and with a color display section for performing display in accordance with the display output gradation outputted from said conversion section, comprising:

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an optical sensor for measuring brightness and white chromaticity of said color display

section; and

a controller for controlling the processing of calibrating the display characteristics;

wherein said controller is capable of performing the following operations:

a first step of setting into the maximum gradation the display input gradation of the

conversion table for a plurality of colors, then adjusting the display output gradation of the

conversion table for a plurality of colors, then measuring brightness and white chromaticity of

the color display section through said optical sensor, and thereby acquiring an initial-calibration

use display output gradation that causes the brightness and the white chromaticity to become

target brightness and target white chromaticity;

a second step of establishing correspondence between the maximum gradation of the

display input gradation and the initial-calibration use display output gradation, and thereby

performing initial calibration of the conversion table for a plurality of colors such that the

correlation between the display input gradation and the display output gradation should become a

predetermined function;

a third step of displaying a white screen at a plurality of gradations of display input

gradation by using the conversion table for a plurality of colors having undergone the initial

calibration;

a fourth step of measuring single color brightness of a plurality of colors for a plurality of

gradations of display input gradation in the white screen through said optical sensor, then

applying a display output gradation corresponding to the display input gradation, and thereby

acquiring display output gradation versus single color brightness correlation characteristics of a plurality of colors;

a fifth step of calculating target white brightness for a plurality of gradations of display input gradation by using target display characteristics having been set up in advance as well as white brightness of the case that the display input gradation is at the maximum gradation and white brightness of the case that the display input gradation is at the minimum gradation which have been acquired from the white screen, and thereby acquiring display input gradation versus target white brightness correlation characteristics;

a sixth step of proportionally distributing the target white brightness for a plurality of gradations of display input gradation by using the ratio of the single color brightness of a plurality of colors of the case that the display input gradation is at the maximum gradation, thereby calculating target single color brightness for a plurality of gradations of display input gradation, and thereby acquiring display input gradation versus target single color brightness correlation characteristics of a plurality of colors; and

a seventh step of acquiring a display output gradation that indicates brightness corresponding to the target single color brightness in the display input gradation versus target single color brightness correlation characteristics of a plurality of colors for a plurality of gradations of display input gradation, as a calibration-use display output gradation on the basis of the display output gradation versus single color brightness correlation characteristics, then establishing correspondence between the calibration-use display output gradation and the display input gradation, and thereby calibrating the conversion table for a plurality of colors.

47. (New) The display characteristics calibration apparatus according to claim 46, wherein

said color display unit is a color liquid crystal display unit provided with a backlight, and wherein at said first step, brightness of the backlight is controlled in parallel.

48. (New) The display characteristics calibration apparatus according to claim 46, wherein

the brightness measured by said optical sensor is expressed by an absolute value.

49. (New) The display characteristics calibration apparatus according to claim 46, wherein

said optical sensor is capable of measuring brightness and chromaticity, so that single color brightness is calculated from the measured brightness and chromaticity.

50. (New) A recording medium that records a computer program for calibrating display characteristics of a color display unit provided with a conversion section having a conversion table for converting a display input gradation into a display output gradation for a plurality of colors and with a color display section for performing display in accordance with the display output gradation outputted from said conversion section, said computer program comprising the following steps:

a first step of causing the computer to set into the maximum gradation the display input gradation of the conversion table for a plurality of colors, then adjust the display output gradation

of the conversion table for a plurality of colors, then acquire brightness and white chromaticity of

said color display section, and thereby acquire an initial-calibration use display output gradation

that causes the brightness and the white chromaticity to become target brightness and target

white chromaticity;

a second step of causing the computer to establish correspondence between the maximum

gradation of the display input gradation and the initial-calibration use display output gradation,

and thereby perform initial calibration of the conversion table for a plurality of colors such that

the correlation between the display input gradation and the display output gradation should

become a predetermined function;

a third step of causing the computer to display a white screen at a plurality of gradations

of display input gradation by using the conversion table for a plurality of colors having

undergone the initial calibration;

a fourth step of causing the computer to acquire single color brightness of a plurality of

colors for a plurality of gradations of display input gradation from the white screen, then apply a

display output gradation corresponding to the display input gradation, and thereby acquire

display output gradation versus single color brightness correlation characteristics of a plurality of

colors;

a fifth step of causing the computer to calculate target white brightness for a plurality of

gradations of display input gradation by using target display characteristics having been set up in

advance as well as white brightness of the case that the display input gradation is at the

maximum gradation and white brightness of the case that the display input gradation is at the

minimum gradation which have been acquired from the white screen, and thereby acquire

display input gradation versus target white brightness correlation characteristics;

a sixth step of causing the computer to proportionally distribute the target white

brightness for a plurality of gradations of display input gradation by using the ratio of the single

color brightness of a plurality of colors of the case that the display input gradation is at the

maximum gradation, thereby calculate target single color brightness for a plurality of gradations

of display input gradation, and thereby acquire display input gradation versus target single color

brightness correlation characteristics of a plurality of colors; and

a seventh step of causing the computer to acquire a display output gradation that indicates

brightness corresponding to the target single color brightness in the display input gradation

versus target single color brightness correlation characteristics of a plurality of colors for a

plurality of gradations of display input gradation, as a calibration-use display output gradation on

the basis of the display output gradation versus single color brightness correlation characteristics,

then establish correspondence between the calibration-use display output gradation and the

display input gradation, and thereby calibrate the conversion table for a plurality of colors.

51. (New) A display characteristics calibration method for calibrating display

characteristics of a color display unit provided with: a conversion section having a conversion

table for converting a display input gradation into a display output gradation for a plurality of

colors; a gain adjustment section for multiplying the display output gradation outputted from said

conversion section, by a predetermined gain constant specific to each of a plurality of colors, and

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then outputting the result as an adjustment gradation; and a color display section for performing

display in accordance with the adjustment gradation, comprising the steps of:

establishing correspondence between the correlation of the display input gradation with

the display output gradation and a predetermined function and thereby calibrating said

conversion table;

setting up the gain constant such that said color display section should display

predetermined brightness and predetermined white chromaticity at a predetermined gradation of

display input gradation of the calibrated conversion table;

displaying, after setting up the gain constant, a single color screen of each of a plurality

of colors and thereby acquiring single color screen brightness of each of a plurality of colors;

displaying, after setting up the gain constant, a white screen at a plurality of gradations of

display input gradation and thereby acquiring white brightness and single color brightness of a

plurality of colors;

distributing the white brightness at the ratio of the single color brightness of a plurality of

colors for the display input gradation with reference to the single color screen brightness, thereby

calculating single color brightness for a plurality of gradations of display input gradation, then

applying a display output gradation corresponding to the display input gradation, and thereby

acquiring correlation of display output gradation versus single color brightness of a plurality of

colors;

calculating target white brightness for a plurality of gradations of display input gradation

by using predetermined display characteristics and target brightness of the case that the display

input gradation is at a predetermined gradation, and thereby acquiring correlation of display

input gradation versus target white brightness;

distributing the target white brightness at the display input gradation versus target white

brightness at the ratio of the single color screen brightness, and thereby calculating target single

color brightness for a plurality of gradations of display input gradation;

acquiring a display output gradation that indicates brightness corresponding to the target

single color brightness for a plurality of gradations of display input gradation, from the

correlation of display output gradation versus single color brightness; and

establishing correspondence between the acquired display output gradation and the

display input gradation and thereby calibrating said conversion table.

52. (New) The display characteristics calibration method according to claim 51, wherein

the plurality of colors are red, green, and blue.

53. (New) The display characteristics calibration method according to claim 51, wherein

the gain constant is such that the gain constant of any one of a plurality of colors is set at

the maximum.

54. (New) The display characteristics calibration method according to claim 51, wherein

the plurality of gradations of input gradation are all gradations of input gradation.

55. (New) The display characteristics calibration method according to claim 51, wherein

said color display unit is a color liquid crystal display unit.

56. (New) A display characteristics calibration method for calibrating display

characteristics of a color display unit provided with a conversion section having a conversion

table for converting a display input gradation into a display output gradation for a plurality of

colors; a gain adjustment section for multiplying the display output gradation outputted from said

conversion section, by a predetermined gain constant specific to each of a plurality of colors, and

then outputting the result as an adjustment gradation; and a color display section for performing

display in accordance with the adjustment gradation, comprising:

a first step of establishing correspondence between the correlation of the display input

gradation with the display output gradation and a predetermined function and thereby performing

initial calibration of the conversion table for a plurality of colors;

a second step of setting into the maximum gradation the display input gradation of the

conversion table for a plurality of colors having undergone the initial calibration, and then setting

up the gain constant such that the brightness and the white chromaticity of said color display

section should become tentative target brightness and target white chromaticity;

a third step of displaying, after setting up the gain constant, a single color screen of each

of a plurality of colors and thereby acquiring primary single color screen brightness of a plurality

of colors;

a fourth step of displaying, after setting up the gain constant, a white screen at a plurality

of gradations of display input gradation and thereby acquiring white brightness and primary

single color brightness of a plurality of colors;

a fifth step of applying a display output gradation corresponding to the display input gradation, to the single color brightness for a plurality of gradations of display input gradation, and thereby acquiring primary display output gradation versus single color brightness correlation characteristics of a plurality of colors;

a sixth step of calculating primary target white brightness for a plurality of gradations of display input gradation by using target display characteristics having been set up in advance as well as tentative target brightness of the case that the display input gradation is at the maximum gradation and tentative target brightness of the case that the display input gradation is at the minimum gradation which have been set up in advance, and thereby acquiring primary display input gradation versus target white brightness correlation characteristics;

a seventh step of proportionally distributing the primary target white brightness for a plurality of gradations of display input gradation by using the ratio of the primary single color screen brightness of a plurality of colors, thereby calculating target single color brightness for a plurality of gradations of display input gradation, and thereby acquiring primary display input gradation versus target single color brightness correlation characteristics of a plurality of colors; and

an eighth step of acquiring a display output gradation that indicates brightness corresponding to the target single color brightness in the primary display input gradation versus target single color brightness correlation characteristics of a plurality of colors for a plurality of gradations of display input gradation, as a calibration-use display output gradation on the basis of the primary display output gradation versus single color brightness correlation characteristics,

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then establishing correspondence between the calibration-use display output gradation and the

display input gradation, and thereby calibrating the conversion table for a plurality of colors.

57. (New) The display characteristics calibration method according to claim 56, further

comprising after said eighth step:

a ninth step of displaying a single color screen of each of a plurality of colors and thereby

acquiring secondary single color screen brightness of a plurality of colors;

a tenth step of displaying a white screen at a plurality of gradations of display input

gradation and thereby acquiring white brightness and secondary single color brightness of a

plurality of colors;

an eleventh step of applying a display output gradation corresponding to the display input

gradation, to the single color brightness for a plurality of gradations of display input gradation,

and thereby acquiring secondary display output gradation versus single color brightness

correlation characteristics of a plurality of colors;

a twelfth step of calculating secondary target white brightness for a plurality of

gradations of display input gradation by using target display characteristics having been set up in

advance as well as target brightness of the case that the display input gradation is at the

maximum gradation and target brightness of the case that the display input gradation is at the

minimum gradation which have been set up in advance, and thereby acquiring secondary display

input gradation versus target white brightness correlation characteristics;

a thirteenth step of proportionally distributing the secondary target white brightness for a

plurality of gradations of display input gradation by using the ratio of the secondary single color

screen brightness of a plurality of colors, thereby calculating target single color brightness for a

plurality of gradations of display input gradation, and thereby acquiring secondary display input

gradation versus target single color brightness correlation characteristics of a plurality of colors;

and

a fourteenth step of acquiring a display output gradation that indicates brightness

corresponding to the target single color brightness in the secondary display input gradation

versus target single color brightness correlation characteristics of a plurality of colors for a

plurality of gradations of display input gradation, as a calibration-use display output gradation on

the basis of the secondary display output gradation versus single color brightness correlation

characteristics, then establishing correspondence between the calibration-use display output

gradation and the display input gradation, and thereby calibrating the conversion table for a

plurality of colors.

58. (New) A display characteristics calibration method according to claim 57, wherein

the tentative target brightness and the target brightness have a relation that the tentative

target brightness at said second step > the tentative target brightness at the maximum gradation at

said sixth step > the target brightness at the maximum gradation at said twelfth step.

59. (New) The display characteristics calibration method according to claim 56, further

comprising after said eighth step:

a fifteenth step of displaying a white screen at a plurality of gradations of display input

gradation, thereby acquiring white brightness, then applying a display output gradation

corresponding to the display input gradation, and thereby acquiring display output gradation

versus white brightness correlation characteristics;

a sixteenth step of calculating secondary target white brightness for a plurality of

gradations of display input gradation by using target display characteristics having been set up in

advance as well as target brightness of the case that the display input gradation is at the

maximum gradation and target brightness of the case that the display input gradation is at the

minimum gradation which have been set up in advance, and thereby acquiring secondary display

input gradation versus target white brightness correlation characteristics; and

a seventeenth step of acquiring a display output gradation that indicates brightness

corresponding to the secondary target white brightness in the secondary display input gradation

versus white brightness correlation characteristics for a plurality of gradations of display input

gradation, as a calibration-use display output gradation on the basis of the display output

gradation versus white brightness correlation characteristics, then establishing correspondence

between the calibration-use display output gradation and the display input gradation, and thereby

calibrating the conversion table for a plurality of colors.

60. (New) A display characteristics calibration method according to claim 59, wherein

the tentative target brightness and the target brightness have a relation that the tentative

target brightness at said second step > the tentative target brightness at the maximum gradation at

said sixth step > the target brightness at the maximum gradation at said sixteenth step.

61. (New) The display characteristics calibration method according to claim 56, wherein

the plurality of colors are red, green, and blue.

62. (New) The display characteristics calibration method according to claim 56, wherein

the gain constant is such that the gain constant of any one of a plurality of colors is set at

the maximum.

63. (New) The display characteristics calibration method according to claim 56, wherein

the plurality of gradations of input gradation are all gradations of input gradation.

64. (New) The display characteristics calibration method according to claim 56, wherein

said color display unit is a color liquid crystal display unit.

65. (New) A display characteristics calibration apparatus for calibrating display

characteristics of a color display unit provided with a conversion section having a conversion

table for converting a display input gradation into a display output gradation for a plurality of

colors; a gain adjustment section for multiplying the display output gradation outputted from said

conversion section, by a predetermined gain constant specific to each of a plurality of colors, and

then outputting the result as an adjustment gradation; and a color display section for performing

display in accordance with the adjustment gradation, comprising:

an optical sensor for measuring brightness and white chromaticity of said color display

section; and

a controller for controlling the processing of calibrating the display characteristics;

wherein said controller is capable of performing the following operations:

a first step of establishing correspondence between the correlation of the display input

gradation with the display output gradation and a predetermined function and thereby performing

initial calibration of the conversion table;

a second step of setting into the maximum gradation the display input gradation of the

conversion table of a plurality of colors having undergone the initial calibration, then measuring

brightness and white chromaticity of said color display section through said optical sensor, and

then setting up the gain constant such that the brightness and said white chromaticity should

become target brightness and target white chromaticity;

a third step of displaying, after setting up the gain constant, a single color screen of each

of a plurality of colors and then measuring single color screen brightness of a plurality of colors

through said optical sensor;

a fourth step of displaying, after setting up the gain constant, a white screen at a plurality

of gradations of display input gradation and then measuring white brightness and single color

brightness of a plurality of colors through said optical sensor;

a fifth step of applying a display output gradation corresponding to the display input

gradation, to the single color brightness for a plurality of gradations of display input gradation,

and thereby acquiring display output gradation versus single color brightness correlation

characteristics of a plurality of colors;

a sixth step of calculating target white brightness for a plurality of gradations of display

input gradation by using target display characteristics having been set up in advance as well as

target brightness of the case that the display input gradation is at the maximum gradation and

target brightness of the case that the display input gradation is at the minimum gradation which

have been set up in advance, and thereby acquiring display input gradation versus target white

brightness correlation characteristics;

a seventh step of proportionally distributing the target white brightness for a plurality of

gradations of display input gradation by using the ratio of the single color screen brightness of a

plurality of colors, thereby calculating target single color brightness for a plurality of gradations

of display input gradation, and thereby acquiring display input gradation versus target single

color brightness correlation characteristics of a plurality of colors; and

an eighth step of acquiring a display output gradation that indicates brightness

corresponding to the target single color brightness in the display input gradation versus target

single color brightness correlation characteristics of a plurality of colors for a plurality of

gradations of display input gradation, as a calibration-use display output gradation on the basis of

the display output gradation versus single color brightness correlation characteristics, then

establishing correspondence between the calibration-use display output gradation and the display

input gradation, and thereby calibrating the conversion table for a plurality of colors.

66. (New) The display characteristics calibration apparatus according to claim 65,

wherein

said color display unit is a color liquid crystal display unit provided with a backlight, and

wherein at said second step, brightness of the backlight is controlled in parallel.

67. (New) The display characteristics calibration apparatus according to claim 65,

wherein

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the single color brightness of a plurality of colors measured by said optical sensor is

expressed by a relative value, and wherein the single color brightness is normalized so that the

single color brightness at said fifth step is calculated.

68. (New) The display characteristics calibration apparatus according to claim 65,

wherein

said optical sensor is capable of measuring brightness and chromaticity, so that the single

color brightness at said fourth step is calculated from the measured brightness and chromaticity.

69. (New) A recording medium that records a computer program for calibrating display

characteristics of a color display unit provided with a conversion section having a conversion

table for converting a display input gradation into a display output gradation for a plurality of

colors; a gain adjustment section for multiplying the display output gradation outputted from said

conversion section, by a predetermined gain constant specific to each of a plurality of colors, and

then outputting the result as an adjustment gradation; and a color display section for performing

display in accordance with the adjustment gradation, said computer program comprising the

following steps:

a first step of causing the computer to establish correspondence between the correlation

of the display input gradation with the display output gradation and a predetermined function and

thereby perform initial calibration of the conversion table;

a second step of causing the computer to set into the maximum gradation the display

input gradation of the conversion table for a plurality of colors having undergone the initial

calibration, and then set up the gain constant such that the brightness and the white chromaticity

of said color display section should become tentative target brightness and target white

chromaticity;

a third step of causing the computer to display, after setting up the gain constant, a single

color screen of each of a plurality of colors and thereby acquire primary single color screen

brightness of a plurality of colors;

a fourth step of causing the computer to display, after setting up the gain constant, a white

screen at a plurality of gradations of display input gradation and thereby acquire white brightness

and primary single color brightness of a plurality of colors;

a fifth step of causing the computer to apply a display output gradation corresponding to

the display input gradation, to the single color brightness for a plurality of gradations of display

input gradation, and thereby acquire primary display output gradation versus single color

brightness correlation characteristics of a plurality of colors;

a sixth step of causing the computer to calculate primary target white brightness for a

plurality of gradations of display input gradation by using target display characteristics having

been set up in advance as well as tentative target brightness of the case that the display input

gradation is at the maximum gradation and tentative target brightness of the case that the display

input gradation is at the minimum gradation which have been set up in advance, and thereby

acquire primary display input gradation versus target white brightness correlation characteristics;

a seventh step of causing the computer to proportionally distribute the primary target

white brightness for a plurality of gradations of display input gradation by using the ratio of the

primary single color screen brightness of a plurality of colors, thereby calculate target single

color brightness for a plurality of gradations of display input gradation, and thereby acquire

primary display input gradation versus target single color brightness correlation characteristics of

a plurality of colors; and

an eighth step of causing the computer to acquire a display output gradation that indicates

brightness corresponding to the target single color brightness in the primary display input

gradation versus target single color brightness correlation characteristics of a plurality of colors

for a plurality of gradations of display input gradation, as a calibration-use display output

gradation on the basis of the primary display output gradation versus single color brightness

correlation characteristics, then establish correspondence between the calibration-use display

output gradation and the display input gradation, and thereby calibrate the conversion table for a

plurality of colors.

70. (New) The recording medium according to claim 69, wherein

said computer program further comprises, after said eighth step, the following steps:

a ninth step of causing the computer to display a single color screen of each of a plurality

of colors and thereby acquire secondary single color screen brightness of a plurality of colors;

a tenth step of causing the computer to display a white screen at a plurality of gradations

of display input gradation and thereby acquiring white brightness and secondary single color

brightness of a plurality of colors;

an eleventh step of causing the computer to normalize each of the secondary single color

brightness of a plurality of colors for the display input gradation with reference to the secondary

single color screen brightness, then proportionally distribute the white brightness acquired at said

tenth step, by using the ratio of the normalized secondary single color brightness of a plurality of

colors, thereby calculate single color brightness for a plurality of gradations of display input

gradation, then apply a display output gradation corresponding to the display input gradation,

and thereby acquire secondary display output gradation versus single color brightness correlation

characteristics of a plurality of colors;

a twelfth step of causing the computer to calculate secondary target white brightness for a

plurality of gradations of display input gradation by using target display characteristics having

been set up in advance as well as target brightness of the case that the display input gradation is

at the maximum gradation and target brightness of the case that the display input gradation is at

the minimum gradation which have been set up in advance, and thereby acquire secondary

display input gradation versus target white brightness correlation characteristics;

a thirteenth step of causing the computer to proportionally distribute the secondary target

white brightness for a plurality of gradations of display input gradation by using the ratio of the

secondary single color screen brightness of a plurality of colors, thereby calculate target single

color brightness for a plurality of gradations of display input gradation, and thereby acquire

secondary display input gradation versus target single color brightness correlation characteristics

of a plurality of colors; and

a fourteenth step of causing the computer to acquire a display output gradation that

indicates brightness corresponding to the target single color brightness in the secondary display

input gradation versus target single color brightness correlation characteristics of a plurality of

colors for a plurality of gradations of display input gradation, as a calibration-use display output

gradation on the basis of the secondary display output gradation versus single color brightness

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correlation characteristics, then establish correspondence between the calibration-use display

output gradation and the display input gradation, and thereby calibrate the conversion table for a

plurality of colors.

71. (New) The recording medium according to claim 69, wherein

said computer program further comprises, after said eighth step, the following steps:

a fifteenth step of causing the computer to display a white screen at a plurality of

gradations of display input gradation, thereby acquire white brightness, then apply a display

output gradation corresponding to the display input gradation, and thereby acquire display output

gradation versus white brightness correlation characteristics;

a sixteenth step of causing the computer to calculate secondary target white brightness for

a plurality of gradations of display input gradation by using target display characteristics having

been set up in advance as well as target brightness of the case that the display input gradation is

at the maximum gradation and target brightness of the case that the display input gradation is at

the minimum gradation which have been set up in advance, and thereby acquire secondary

display input gradation versus target white brightness correlation characteristics; and

a seventeenth step of causing the computer to acquire a display output gradation that

indicates brightness corresponding to the secondary target white brightness in the secondary

display input gradation versus white brightness correlation characteristics for a plurality of

gradations of display input gradation, as a calibration-use display output gradation on the basis of

the display output gradation versus white brightness correlation characteristics, then establish

correspondence between the calibration-use display output gradation and the display input

gradation, and thereby calibrate the conversion table for a plurality of colors.

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